

IN THE UNITED STATES DISTRICT COURT FOR THE
EASTERN DISTRICT OF VIRGINIA

Alexandria Division

TOUCHCOM, INC., et al.,)
)
Plaintiffs,)
)
v.)
) 1:07cv114 (JCC)
BERRESKIN & PARR, et al.,)
)
Defendants.)

M E M O R A N D U M O P I N I O N

The Defendants Bereskin & Parr ("B&P"), a Canadian intellectual property firm, and H. Samuel Frost, a patent agent at B&P, requested a claim-construction (*Markman*) Hearing to aid the Court in construing various claims made within United States Patent No. 5,027,282 (Pl.'s Ex. A; Def.'s Ex. B (referred to throughout as the "'282 Patent"). The present claim-construction proceedings take place as part of the "case within-a-case" of a malpractice action against B&P, the firm that prosecuted the patent-in-suit. The technology in this case relates to gas station fuel pumps. The patent at issue here describes a pump system which includes a "display and input means" connected to a "pump means" through a central processing unit. The pump is capable of, for example, fueling the vehicle while simultaneously performing other tasks, such as asking whether the user also wants to purchase a car wash.

I. Background

A. Procedural Background

In 1987 plaintiff Touchcom, Inc. ("Touchcom") hired B&P to obtain patent protection for the invention. In 2003, Touchcom, Inc. and Touchcom Technologies, Inc. (collectively ("Plaintiffs")) sued Dresser, Inc. in the Eastern District of Texas for infringement of the '282 Patent (the "Dresser Litigation"). The court in that action granted summary judgment finding the patent was invalid because certain software code was missing from the specification. *Touchcom, Inc. v. Dresser, Inc.*, 427 F. Supp. 2d 730, 736-37 (E.D. Tex. 2005). To prove damages here, Plaintiffs must conduct a "trial within a trial" to prove the '282 Patent would have been found valid and infringed if the software code had been present. See Mem. Op. (Feb. 4, 2008), at 12-14 [Dkt. No. 50]; see also *Touchcom, Inc. v. Bereskin & Parr*, 574 F.3d 1403, 1413 (Fed. Cir. 2009) (confirming same).

The court in the Dresser Litigation held that the terms "application task means" and "display and input task means" were "means-plus-function" limitations governed by 35 U.S.C. § 112 ¶ 6 ("§ 122") and that under the statute the limitations lacked the requisite corresponding structures (*i.e.*, the code.) Summary judgment, however, was entered before the court ruled on any other disputed terms. See *Touchcom, Inc.*,

427 F. Supp. 2d at 734-37. At issue in the *Markman* hearing here are the construction of those and other terms of the '282 Patent.

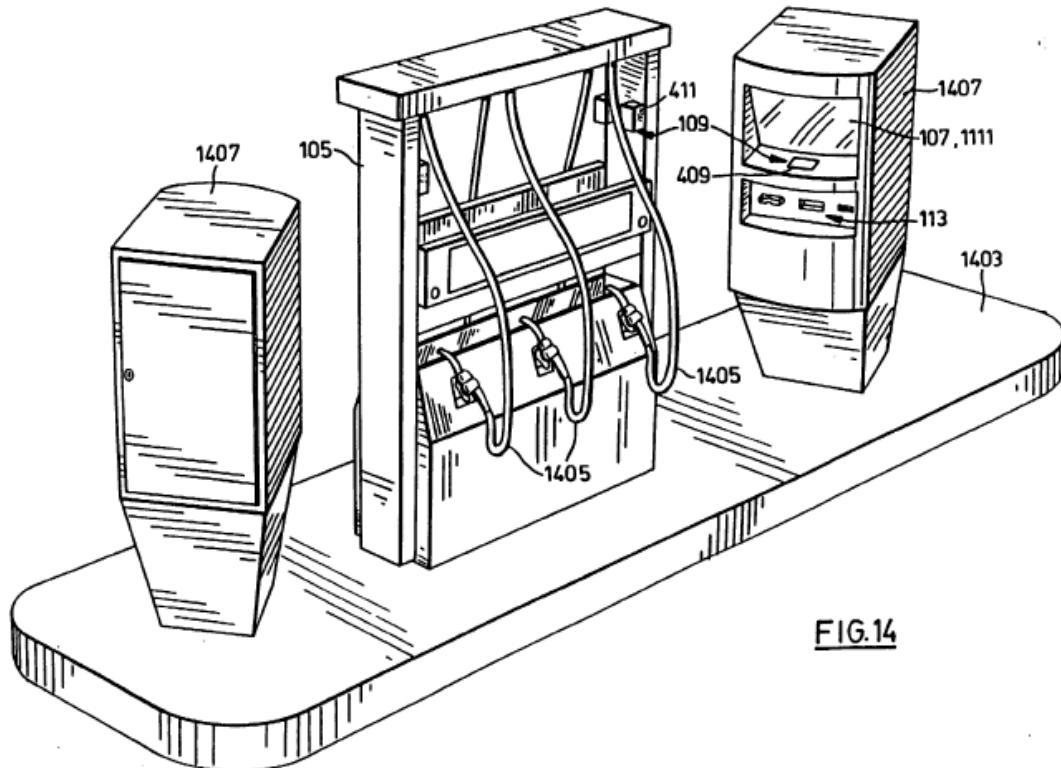
B. The '282 Patent

The '282 Patent is generally directed to an interactive fuel pump used (for example) at a typical gas station. The patent issued on June 25, 1991, and claims priority to an application filed August 6, 1987. (See the '282 Patent).

The '282 Patent system comprises certain devices, including the disputed terms "pump means" and "display and input means" (along with the undisputed central processing unit ("CPU")). The CPU contains software programs, referred to as "tasks", that direct the devices: the term "pump task means" controls the pump means and a "display and input task means" controls the display and input means. There is also a third task known as the "application task means" that coordinates the communications within the system.¹

¹ The construction of the terms "Application Task Means," "Pump Task Means," and "Display and Input Task Means" are no longer disputed by the Defendants [See Dkt. 147] thus the Court will adopt the proposed constructions offered by the Plaintiffs in Exhibit B attached to their Memorandum in Support of Plaintiffs' Proposed Claim Constructions ("Pls.' Mem."). [See Dkt. 134.]

Figure 14 of the '282 Patent depicts the "Preferred Embodiment" of the system:



('282 Patent, Certificate of Correction dated June 25, 1991, attached to '282 Patent.) The pump element is labeled 105 in the figure. The CPU with the various task means is in a column, labeled 1407, which also houses the display and input means. The "display and input means" is depicted here as a touch screen device consisting of a touch-sensitive screen placed over a monitor. The two elements of the touch-screen device are separately labeled 107 and 1111 [read 111] in the figure. Number 107 is identified as the video element of the system, and number 111 identified as the "touch element". (See '282 Patent

at 4:12-15.)²

The '282 Patent has 16 claims. Claim 1 is the only independent claim, and Claims 1, 2, and 3 are at issue here. Claim 1 recites (terms for which the parties have requested construction underlined):

An interactive pump system capable of interacting with and corresponding to responses from a user, the system comprising:

A pump means;

a central processing unit connected to the pump means; and

A display and input means including a plurality of instruction displays and being connected to the pump means and the central processing unit;

Wherein the pump means is operable to transmit transaction data, concerning fluid pumped, to the display and input means which will display the transaction data, display one instruction display, and transfer input responses from a user to the central processing unit, the central processing unit being operable to process the input responses and to control the pump means according to the responses,

Characterized in that the central processing unit includes pump task means, display and input task means and application task means, each task means, in operation running concurrently with the other task means, with the pump task means controlling the pump means, the display and input task means controlling the display and input means, and the application task means receiving and processing the input responses and transferring results into pump directions to the pump task means.

The *Markman* hearing was held to resolve the disputes regarding

² Citations to the '282 Patent point to the column number followed by the line number, thus "4:12-15" indicates '282 Patent column four, lines twelve to fifteen.

the meaning of these terms.

II. Legal Framework for Claim Construction

A. Basic Principles

Terms as used in patent construction are presumed to have their ordinary and customary meaning, which is "the meaning that the terms would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application."³ *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc); *Innova/Pure Water, Inc. v. Safari Water Filtration Sys.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004). "Such a person is deemed to read the words used in the patent documents with an understanding of their meaning in the field, and to have knowledge of any special meaning and usage in the field."

Multiform Desiccants, Inc. v. Medzam, Ltd., 133 F.3d 1473, 1477 (Fed. Cir. 1998).

³ The parties disagree about the requisite experience of a "person of ordinary skill in the art" to which the '282 Patent is directed. (See Pls.' Br. in Supp. of Proposed Claim Construction ("Pls.' Br.") at 8; Defs.' Br. in Supp. of Proposed Claim Construction ("Defs.' Br.") at 10.) Defendant's would have "the individual hold a bachelor's degree in electrical engineering, computer engineering, computer science, or the equivalent, and at least two years of experience in the field. Such a person would understand electronic displays, graphical interface elements including touch screens, microprocessors and related components, and associated software, including software development for embedded systems." (Defs.' Br. at 10.) Plaintiffs would require the individual to have "at least five years of experience working with the installation and/or design of electronically-controlled fuel dispenser systems, and a good understanding of how computers and computer systems work in such fuel dispenser systems. One of skill in the art of programming such computers would typically have three-five years programming experience in the field of computer systems and computer-controlled hardware devices." (Pls.' Br. at 8.) The Court finds that these distinctions would not alter an individual's views regarding the disputed terms here.

A court, in its effort to understand the disputed term from the perspective of a person skilled in the art, may look to "the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art." *Innova*, 381 F.3d at 1116. The Court considers this evidence in the following hierarchy: (1) the claim language; (2) other intrinsic evidence (consisting of the specification, the remainder of the patent document, and the patent prosecution history); and, (3) extrinsic evidence "consist[ing] of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises."⁴ See *Advanced Cardiovascular Sys. v. Medtronic*, 265 F.3d 1294, 1304 (Fed. Cir. 2001) ("As always, we begin our construction with the words of the claim. After looking to the claim language we consider the rest of the intrinsic evidence, that is, the written description and the prosecution history if in evidence."). The court has a strong preference for considering intrinsic evidence as the primary authority for whether claim terms' meanings are consistent with the Federal Circuit's holding in *Phillips*, labeling extrinsic evidence as "less significant." 415 F.3d at 1317; see also *id.* at 1318 ("[C]onclusory, unsupported

⁴ *Phillips*, 415 F.3d at 1317 (quoting *Markman*, 52 F.3d at 980).

assertions by experts as to the definition of a claim term are not useful to a court.”).

It is a “bedrock principle” of patent law that “the claims of a patent define the invention to which the patentee is entitled the right to exclude.” *Innova*, 381 F.3d at 1115. It follows from this principle that “[t]he written description part of the specification itself does not delimit the right to exclude. That is the function and purpose of claims.” *Markman* 52 F.3d at 980 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996). Accordingly, a district court undertaking claim construction must “look to the words of the claims themselves . . . to define the scope of the patented invention.” *Vitronics Corp. v. Conceptronic*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). A patentee’s desire to redefine a claim term apart from its ordinary and customary meaning must be clearly indicated. See *Sinorgchem Co. v. ITC*, 511 F.3d 1132, 1136 (Fed. Cir. 2007); *Vitronics*, 90 F.3d at 1582 (“The specification acts as a dictionary when it expressly defines terms used in the claims or when it defines terms by implication”).

The specification is the “single best guide to the meaning of a disputed term” aside from the claim itself and is usually “dispositive,” because the court’s claim construction determination should not conflict with the clear language of a specification. *Phillips*, 415 F.3d at 1315. In addition, a

court may further consider the patent's prosecution history -- known also as the patent's "file wrapper" -- for the purpose of determining whether to "exclude any interpretation that was disclaimed during prosecution." *Chimie v. PPG Indus., Inc.*, 402 F.3d 1371, 1384 (Fed. Cir. 2005) (citations omitted).

There is "a fine line between reading a claim in light of the specification, and reading a limitation into the claim from the specification," and it is well settled that a court may not "confin[e] the claims to those embodiments" found in the patent. *Phillips*, 415 F.3d at 1323. The Federal Circuit has explicitly "rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment . . . because persons of ordinary skill in the art rarely would confine their definitions of terms to the exact representations depicted in the embodiments." *Id.* at 1323.

Comparison of disputed claim terms to other later claims in the patent, both disputed and undisputed, is often illuminating because "a claim term should be construed consistently with its appearance in other places in the same claim or in other claims of the same patent." *Rexnord Corp. v. Laitram Corp.*, 274 F.3d 1336, 1342 (Fed. Cir. 2001). Differences among claims are evidence of the patentee's intent to distinguish claim terms, giving rise to the principle that

"different claim terms are presumed to have different meanings."

Helmsderfer v. Bobrick Washroom Equip., Inc., 527 F.3d 1379, 1382 (Fed. Cir. 2008).

B. 35 U.S.C. § 112: Means-Plus-Function Claims

The parties dispute whether or not the term "display and input means" should be construed as a "means-plus-function" claim.⁵ Means-plus-function ("MPF") claims are outlined in 35 U.S.C. § 112. That statute provides:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

35 U.S.C. § 112. The burden of proving that a disputed claim is subject to § 112 rests with the party asserting as much: here, the Defendants. *Apex Inc. v. Raritan Computer, Inc.*, 325 F.3d 1364, 1372 (Fed. Cir. 2003). If a claim element contains the word "means" and recites a function, courts presume that element is a MPF element under § 112. *Allen Eng'g Corp. v. Bartell Indus., Inc.*, 299 F.3d 1336, 1347 (Fed. Cir. 2002). The presumption may be rebutted if the claim language recites sufficient structure or material for performing the claimed function. *Id.*; *Cole v. Kimberly-Clark Corp.*, 102 F.3d 524, 531 (Fed. Cir. 1996). Merely because a limitation uses the word

⁵ Defendants have conceded that the term "pump means" should not be construed as a means-plus-function limitation. [See Dkt. 148.]

"means" does not necessarily render that limitation a MPF limitation subject to § 112. *Allen Eng'g*, 299 F.3d at 1347 (stating that "mere use of the word 'means' after a limitation, without more, does not suffice to make that limitation a means-plus-function limitation").

If the court determines that means-plus-function language is employed in a *claim*, the *specification* must set forth an adequate disclosure showing what is meant by that language. See *Default Proof Credit Card Sys. v. Home Depot U.S.A., Inc.*, 412 F.3d 1291, 1298 (Fed. Cir. 2005). "If an applicant fails to set forth an adequate disclosure, the applicant has in effect failed to particularly point out and distinctly claim the invention as required by the second paragraph of section 112." *Id.* (citing *In re Donaldson Co.*, 16 F.3d 1189, 1195 (Fed. Cir. 1994) (en banc)). This duty to link or associate structure to function is the quid pro quo for the convenience of employing § 112. See *O.I. Corp. v. Tekmar Co.*, 115 F.3d 1576, 1583 (Fed. Cir. 1997). "Fulfillment of the § 112 trade-off cannot be satisfied when there is a total omission of structure." *Atmel*, 198 F.3d at 1382. While corresponding structure need not include all things necessary to enable the claimed invention to work, it must include all structure that actually performs the recited function. *Id.* (citing *Cardiac*

Pacemakers, Inc. v. St. Jude Med., Inc., 296 F.3d 1106, 1119 (Fed. Cir. 2002).

III. Construction for the '282 Patent Terms

There are six terms that the parties ask this Court to construe where the appropriate construction is not in dispute: "application task means;" "display and input task means;" "pump task means;" "running concurrently;" "task;" and "transaction data."⁶ The Court will adopt these constructions without analysis. This leaves the Court with the following terms: "commands;" "connected/connected to;" "control/controlling;" "directions;" "display and input means;" "pump means;" "requests;" "responses;" and "user." The Court will construe these terms as follows.

A. Means-Plus-Function Construction

The parties dispute whether or not the term "display and input means" should be construed as a "means-plus-function" term under 35 U.S.C. § 112(6). Plaintiff argues that § 112 does not apply while Defendants argue that it does. The Court will first examine the applicability of § 112 and then construe the term under the appropriate structure.

As is discussed in Section II.B above, the ultimate burden of proving that a disputed claim is subject to § 112

⁶ On July 26, 2010, Defendants, through correspondence from counsel, informed the Court that they "do not intend to challenge Plaintiff's identification of structures corresponding to the various "task means" limitations at issue." [Dkt. 147.]

rests with the party asserting as much: here, the Defendants. *Raritan Computer, Inc.*, 325 F.3d at 1372. Where, as here, the disputed term contains the word "means" ("display and intput means") and recites a function ("display the transaction data, display on instruction display, and transfer input responses from a user to the central processing unit") it is presumed to be a MPF element under § 112. '282 Patent at 1341:32-35; see *Allen Eng'g*, 299 F.3d at 1347. The presumption may be rebutted but the *claim* language must recite sufficient structure or material for performing the claimed function. *Id.*; *Cole*, 102 F.3d at 531.

Plaintiffs argue that just as with the element "pump means" which Defendants concede is not a MPF element, "the terms 'input' and 'display' would be readily understood by those skilled in the art as being structural terms—the display refers to a display, and the input refers to an input device." (Pls.' Br. at 11.) Defendants argue that the element is a MPF claim because "nothing in the claims, and certainly nothing in the phrase 'display and input,' describes sufficient structure to overcome the presumption that 'display and input means' is a mean-plus-function limitation." (Defs.' Br. at 11.) This Court agrees with the Defendants.

To constitute a MPF limitation the claim language itself must provide sufficient structure for performing the

claim function. See *Allen Eng'g*, 299 F.3d at 1347. Here, a "display" structure, without more, cannot perform the function of displaying transaction data and instructions, and an "input structure," without more, will not "transfer input responses from a customer to a central processing unit", thus, as the disputed term contains the word "means" the presumption stands that § 112 applies.⁷ Having determined that "display and input means" is a MPF the Court must now construe the term using MPF analysis.

Setting aside the parties' dispute regarding the meaning of the term "user," as an initial matter the parties agree that the function of the "display and input means" is as stated in the claim: "display the transaction data, display one instruction display, and transfer input response from a user to the central processing unit." '282 Patent at 1341:32-35; See Jul. 28, 2010 Tr. at 67:2-5.⁸ The parties do dispute how the

⁷ In the Federal Circuit case law cited by Plaintiffs, the Court found the limitations "perforation means . . . for tearing," "pivot steering box means," "connecting shaft means," "crank means," "antenna means," and "projection means" were not subject to § 112 because of structural nature of the terms preceding the word "means." *Cole*, 102 F.3d at 531 ("perforation means"); *Allen Eng'g*, 299 F.3d at 1348 (remaining terms); *Microsoft Corp. v. Commonwealth Sci. & Indus. Research Org.*, 572 F. Supp. 2d 786, 800 (E.D. Tex. 2008) ("antenna means"); *Amesbury Group, Inc. v. Caldwell Mfg. Co.*, No. 05-10020, 2006 U.S. Dist. LEXIS 2175, at *40 (D. Mass. Jan. 20, 2006) ("projection means"). These cases are distinguishable because in them "the claim drafter[s'] perfunctory addition of the word 'means' did nothing to diminish the precise structural character of the element." *Id.* (emphasis added) (citing *Cole*, 102 F.3d at 531). There is no such precision here.

⁸ During oral argument Defendants' counsel stated: "the parties agree that the function is to display the transaction data, display one instruction, and transfer input responses from a user/customer to the central processing unit."

corresponding structure should be construed. The Plaintiffs argue the structure is "a monitor and a current loop transmission circuit;" while the Defendants argue it is "a touch screen device that includes a touch screen, a touch circuit, a monitor, and a video circuit." The court rejects both of these proposed constructions. The corresponding structure to perform the agreed upon function ("display the transaction data, display one instruction display, and transfer input response from a user to the central processing unit") is "a structure which will transfer input responses such as a modem or touch screen device, a monitor, and a current loop transmission circuit" and its equivalents.

While Defendants have argued that the "display and input means" structure should be limited to touch screens, the plain language of the claim makes no such restriction and the Court has found no reason to impose one. See '282 Patent at 1341:20-70. The Federal Circuit has explicitly "rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment . . . because persons of ordinary skill in the art rarely would confine their definitions of terms to the exact representations depicted in the embodiments." *Phillips*, 415 F.3d at 1323. Here, the diagram of the "preferred embodiment" displays a touch screen and monitor but the Patent's claims are

not limited to that embodiment thus a restriction of the terms to that representation is not warranted.

The Court notes, but does not solely rely on the fact that claim 16 of the '282 Patent, a dependant claim, is limited to a "display and input means compris[ing] a touch sensitive screen and associated electronics . . . being arranged to accept input responses from a user." '282 Patent at 1344:45-50. "The presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim." *Phillips v. AWH Corp.* 415 F.3d 1303, 1314-1315 (Fed. Cir. 2005) (citing *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004).)⁹ As nothing in the claim language indicates that a touch screen is the only available structure to perform the function of the "display and input means" the Court will not construe the term in such a way.

⁹ Defendants argue, citing to *Laitram* that the doctrine of claim differentiation does not apply to § 112 claims. This argument over states the meaning of *Laitram* as that case does not stand for the broader proposition that a MPF limitation *must* be interpreted without regard to other claims. While it is true that "the stringencies of a means-plus-function limitation are not to be avoided by the mere addition of a dependent claim that recites the corresponding structure disclosed in the specification" here neither the function recited in claim 16 (receiving), nor the structure identified for performing that function (a "touch sensitive screen") are incorporated as part of Claim 1's function of "transferring."

B. Basic Claim Construction

The parties agree that the remaining elements should be construed using the basic claim construction analysis. The Court will address these constructions as follows.

i. *Pump Means*

The parties have agreed that the term "pump means" is not a MPF term [See Dkt. 148]; however, Plaintiffs contend that the term should be construed as "a fuel dispenser" while Defendants have argued it should be construed as either "a fuel pump" (Defs.' Rebuttal Br. n.8) or as a "Pump" (Letter from Defs.' Counsel to the Court (Jul. 27, 2010) [Dkt. 148]). The Court again rejects both parties' proposed constructions. The Plaintiffs' "fuel dispenser" is too vague and the Defendants "pump" could potentially be misconstrued to mean the mechanical device that draws fuel from the underground tanks and pushes it into the tank of a car. Here the term "pump means" refers to "an above ground fuel pump visible to a user such as that depicted in Figure 14 on the '282 patent and identified as No. 105."

ii. *Remaining Terms*

The remaining terms: Commands; Connected/Connected to; Control/Controlling; Directions; Requests; Responses; and User shall all be construed according to their plain and ordinary meaning. It is a canon of claim construction that the terms

used in patent construction are presumed to have their ordinary and customary meaning, which is "the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Phillips*, 415 F.3d at 1313; *Innova*, 381 F.3d at 1116. The parties have offered no argument that overcomes this presumption.

Plaintiffs contend that no construction is necessary for the terms "commands," "directions," and "responses," yet propose that a parenthetical phrase be added to help explain the meaning of the terms to the jury. (See Pls.' Br. at 23; Pls.'s Ex. B.) Plaintiffs argue that these terms, along with the term "request" (for which they propose the definition "messages associated with events"), refer to the flow of computer messages between the application task means, the individual task means (pump task means and display and input task means), and the individual hardware devices (Pump Means and Display and Input Means) and require additional (parenthetical) construction. (Pls.' Br. at 21.) Defendants for their part propose that "Commands" means "Orders;" "Control" means "Commands;" "Directions" means "Instructions;" "User" means "Customer" and that "Requests" and "Responses" should have their plain and ordinary meaning. All of the parties' proposed constructions simply add a layer of complexity and confusion to an already

intricate matter for the jury, the plain and ordinary meaning of these terms is the proper construction here.

IV. Conclusion

For the reasons stated above, the Court will construe the proposed claim terms in accordance with the definitions in the accompanying Order.

August 11, 2010
Alexandria, Virginia

/s/

James C. Cacheris
UNITED STATES DISTRICT COURT JUDGE